

Wu, Jennifer

From: Emi Kondo - NOAA Affiliate <emi.kondo@noaa.gov>
Sent: Thursday, February 16, 2017 2:05 PM
To: Cappellini, Malenna
Cc: Collier, Travis; Gale, William; Wu, Jennifer; Emily Reynolds - NOAA Federal
Subject: Re: Additional questions about effluent

Hi Malenna,

Thank you for the thoughtful reply. I agree that performing a detailed analysis of specific amounts based on the policies and regulations would be outside of the scope of what is needed for this BiOp. I was hoping to use the historical information as a context/example for how much is "a small amount" used in the current hatchery operation rather than as a starting point for a quantitative analysis, but Emily mentioned that the vet hasn't been on station for very long (less than a year), so any historical information you may have wouldn't be useful even as a context for current operation.

If any of the above is not the case, please let me know or give Emily a call to discuss the details.

Thanks,
Emi

On Thu, Feb 16, 2017 at 11:57 AM, Cappellini, Malenna <malenna_cappellini@fws.gov> wrote:

Emi,

There really is no accurate way to quantify the chemicals in the effluent when it leaves the hatchery or provide a potential range of quantity or concentration as there are too many factors involved that would result in the need for chemical use and there is too much variation from brood year to brood year and year to year.

The primary objective of fish health management production programs at USFWS hatcheries is to produce healthy pre-smolts that contribute to the program goals of that particular stock. Another equally important objective is to prevent the introduction, amplification, or spread of certain fish pathogens which might negatively affect the health of both hatchery and naturally producing stocks.

The USFWS Fish Health Center (Olympia FHC) in Olympia, Washington provides for fish health at LNFH, with a veterinarian

on station, under the USFWS Fish Health Policy (<http://www.fws.gov/policy/manual.html> Part 713) and the “Policies and Procedures for Columbia Basin Anadromous Salmonid Hatcheries,” by the Integrated Hatchery Operations Team (IHOT 1996). These documents provide guidance for preventing or minimizing diseases within and outside of the hatchery.

Administration of therapeutic drugs and chemicals to fish and eggs reared at LNFH is performed only when absolutely necessary to effectively prevent, control, or treat disease conditions. All treatments are administered according to label directions in compliance with the FDA and the EPA regulations, and with a veterinary prescription as needed, for the use of aquatic animal drugs and chemicals. The EPA and FDA consider the environmental effects acceptable when the therapeutic compounds are used according to the label. Basically, best management practices are followed to prevent potential negative consequences of hatchery therapeutic drugs and chemical to the environment.

Since all drug and chemical use is therapeutic, under veterinarian guidance and/or prescription, and follow all applicable federal policies and procedures there are reasonable assurances that any potential effects to the Icicle Creek environment are at a minimum negligible.

If you still want to attempt to determine concentrations, ranges, and likelihood of use, to be accurate you would have to analyze what is allowable/acceptable not only by each individual guidance, policies, and regulations adhered to by LNFH but also the combination of all those together to cover all possibilities of chemical use at LNFH that might occur. This seems outside the scope of what is trying to be accomplished in finalizing LNFH's ESA BiOp.

On Mon, Feb 13, 2017 at 1:36 PM, Emi Kondo - NOAA Affiliate <emi.kondo@noaa.gov> wrote:
Hi all,

I'm trying to see if there is a way for us to quantify the chemicals in the effluent when it leaves the hatchery and was wondering if you could help me with the following to the best of your ability:

- Formaldehyde - I realize that the amount/concentration used would depend on the vet prescription and the frequency, but can we somehow characterize it based on historical use? I think the information for those years when the vet has been on station would be most representative of current operations.
 - What is the concentration and volume that the vet usually prescribes? Or can we use an average or maximum that the vet has used in the past?
 - How often was it used annually in the past?
 - Does this get discharged through the abatement pond (so diluted by additional 5 cfs of water after use?) or through the outfall (42 cfs)?
- Iodine - I have that it is used at 75 ppm, 3 times a year. Do you have an estimated volume? Because the iodine solution goes into the abatement pond, I assume it gets an additional dilution by 5 cfs of water after use before it enters Icicle Creek...
- Potassium permanganate - I realize this chemical is not used frequently, if at all, but is there a way to somehow characterize the volume and concentration? E.g., a maximum a vet has prescribed in the past? Average? Then, would it get discharged through the abatement pond or through the outfall?

(b)(6), Emily Reynolds (CC'ed here; [503-231-6290](tel:503-231-6290)) is the POC for this issue.

Thanks,
Emi

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